

ESTROM 2008 International Conference

Walter Giger

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1 About ESTROM

The programme ESTROM was launched in 2004 jointly by the Swiss National Science Foundation, the Swiss Agency for Development and Cooperation and the Romanian Ministry for Education and Research.

ESTROM encompassed scientific studies on inorganic and organic water pollutants focusing on measuring environmental exposure and evaluating inputs, fate and behaviour in wastewater and in ambient waters. Measured environmental concentrations and evaluation of potential negative effects will be the basis for the assessment of risks for the environment and for human health.

This interdisciplinary programme addressed questions such as the magnitude of exposure of the environment and of humans in Romania, the hazards and risks to human health, or the measures to be taken for the protection of the environment and of humans. From a broader perspective, ESTROM aimed to create a decision basis for industry and regulators on how to avoid the negative impact of today's environmental contaminants. In the pursuit of this goal, ESTROM aimed to identify pertinent aquatic pollutants and to suggest mitigating actions to ensure a continuous and sustainable socio-economic development and an improvement of the quality of life in Romania.

Nine research partnerships between Swiss and Romanian researchers were selected in the framework of this programme, involving approximately 60 researchers, mostly working in Romania in the projects: EIMAR, INWAQ, NEPOLL, ORSED, PHARMSOMES, POPIASI, TASAUL, WAQUA and WASEDY.

The projects began in spring 2005 and lasted 30 months. The projects increased Romanian research capacities in this scientific field through the funding of doctoral students and exchange of scientists. Furthermore, the programme offered funding possibilities for implementing research results. Finally, the major findings of the ESTROM projects will be presented during international scientific conference in Romania and also through a final report to be published at the end of the programme.

1.1 ESTROM steering committee

- Walter Giger (President), Eawag, Swiss Federal Institute of Aquatic Science and Technology Duebendorf, Switzerland
- Ulrich Ochsenbein (Vice-President), Office for Water Protection and Waste Management, Berne, Switzerland
- Antonius Kettrup, Technical University Munich, Germany
- Nicolae Panin, Institute GeoEcoMar, Bucharest, Romania
- Ioan Bocsan, Iuliu Hatieganu University, Cluj-Napoca, Romania

2 Conference Programme

Chair of Organising and Scientific Committee

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Wednesday, 3 September 2008

08:30 *Romanian and Swiss Federal Authorities, Nicolae Panin, Walter Giger*

Welcome addresses, organisation and introduction

Session I

The chemical dimension of the EU Water Framework Directive, I: Heavy metal pollution by mining and metal producing industries—impacts on rivers, soils and humans

Keynote lecture

09:00 *Bernhard Dold*, University of Concepcion, Chile, and University of Lausanne, Switzerland
 Sustainable metal mining from exploration, over processing, to mine waste management

ESTROM talks

09:40 *Michaela Sima, Diana Dogaru*, IGAR, Bucharest and *Jürg Zobrist*, Eawag
 Combining natural sciences and socio-economics for an integrated assessment of environmental impacts by mining activities

10:15 *Liliana Gherghe*, Institute for Nonferrous and Rare Metals, Bucharest, *Rodica Nicolescu*, Institute of Public Health, Bucharest, *Agripina Rascu*, Carol Davila University of Medicine and Pharmacy, Bucharest, and *Rolf Krebs*, Zurich University of Applied Sciences, Wädenswil, Switzerland
 Heavy metal contamination in the vicinity of an industrial area near Bucharest

Topic talks

11:15 *Hong Yang*, Eawag
 Community perception of water pollution and its implications for policy making

11:45 *Ioan Bocsan*, Iuliu Hatieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania

Are there clear borders between public health impact of occupational and environmental exposure to heavy metals in mining areas?

12:15 *Horst Behrendt*, Leibniz Institute for Freshwater Ecology and Inland Fisheries, Berlin, Germany
 Nutrient management in the Danube basin and its impact on the Black Sea

Session II

The biological and hydromorphological dimension of the EU WFD: to achieve good ecological status

Keynote lecture

14:00 *Sebastian Birk*, University Duisburg-Essen, Germany
 Assessment and intercalibration of good ecological status in the Danube River Basin according to EU WFD requirements

ESTROM talks

14:40 *Radu Drobot*, Technical University Bucharest and *Marc Soutter*, EPFL Lausanne, Switzerland
 Development of an integrated water quality management system with application to the Ialomita River Basin

15:05 *Laura Alexandrov*, National Institute for Marine Research and Development, Constanta, Romania, and *Jürg Bloesch*, Eawag
 Assessment of anthropogenic impacts on Tasaul Lake in Romania and ecosystem rehabilitation

Topic talks

16:00 *Jürg Bloesch*, Eawag and International Association for Danube Research
 The transboundary Danube River Basin in view of the catchment approach and an integrative water management strategy in line with the EU WF—a comparison with the River Rhine

16:30 *Ulrich Schwarz*, Fluvius, Floodplain Ecology and River Basin Management, Vienna, Austria
 Key threats to the Danube River beyond pollution: The role of habitats and hydromorphology and the application of CEN Standards in the framework of the EU WFD

17:00 *Virgil Iordache* and Florian Bodescu, University of Bucharest

The necessities of an integrated monitoring system in the Lower Danube River Basin within the EU WFD: implementing the environmental impact assessment and the strategic impact assessment

17:30 Poster Session

Thursday, 4 September 2008

Session III

The chemical dimension of the EU WFD II: Organic contaminants, dangerous substances, drinking water, comparison to the Rhine River Basin

Keynote lecture

08:30 *Maria Fürhacker*, University of Natural Resources and Applied Life Sciences, Vienna, Austria

EU Water Framework Directive and Stockholm Convention: Can we reach the targets for Priority Substances and Persistent Organic Pollutants?

ESTROM talks

09:10 *Zaharie Moldovan*, National Institute for Isotopic and Molecular Technology, Cluj-Napoca, Romania, and Alfredo Alder, Eawag

Environmental exposure of pharmaceuticals in the Somes Valley watershed in Romania

WAQA

09:35 *Dumitru Ristoiu*, University Babes-Bolyai, Cluj-Napoca, Romania, and Urs von Gunten, Eawag

Formation of trihalomethanes and bromate during disinfection of drinking water in water treatment plants and distribution systems

Topic talks

10:30 *Ulrich Borchers*, IWW, Mülheim an der Ruhr, Germany

The chemical monitoring activity under the EU Water Framework Directive—state of the art and analytical challenges

11:00 *FraJo Wirtz*, IAWR, International Association of Waterworks in the Rhine catchment area

International river management and drinking water treatment in the Rhine and Danube catchment areas in the context of the EU Water Framework Directive

11:30 *Romeo Chira*, Somes Water Company, Cluj-Napoca, Rumania

Drinking water resources and treatment in Romania

13:00 Poster Session

Session IV

Sediments, mercury, persistent and polar organic pollutants

Keynote lecture

14:00 *Ivan Holoubek*, Masaryk University, Brno, Czech Republic

Monitoring persistent organic pollutants in Central and Eastern Europe

ESTROM talks

14:40 *Andrea Garcia Bravo*, University of Geneva, Switzerland, *Viorel Ungureanu*, University of Bucharest, and *Janusz Dominik*, University of Geneva, Switzerland

Historical record of mercury contamination in the sediments of the Babeni Reservoir in the Olt River in Romania

15:05 *Ioan Manuel Ciomasu*, Alexandru Ioan Cuza University, Iasi, and *Felippe de Alencastro*, EPFL, Lausanne, Switzerland

Chemical, biological and ecotoxicological assessment of the Bahlui River in Romania—pesticides and persistent organic pollutants

Topic talks

16:00 *Frank Thomas Lange*, Technologiezentrum Wasser, Karlsruhe, Germany

Perfluoroalkyl sulfonates and carboxylates in ambient waters and in drinking water

16:30 *Marijan Ahel*, Rudjer Boskovic Institute, Zagreb, Croatia

Surfactants and surfactant metabolites in wastewaters and ambient waters

17:00 *Ulf Skyllberg*, Swedish University of Agricultural Sciences, Umea, Sweden

Methylmercury production as a basis for risk assessment of mercury-contaminated sediments

17:30

Podium discussion with representatives of Romanian and international water and environmental institutions

- *Mihaela Popovici*, International Commission for the Protection of the Danube River
- *Gheorghe Constantin*, Romanian Ministry for the Environment and Sustainable Development

Conference Dinner**Friday, 5 September 2008****Session V****Biogeochemistry, local and global impacts in the Lower Danube River Basin****Keynote lecture**

08:30 *Hans Peter Nachtnebel*, University of Natural Resources and Applied Life Sciences, Vienna, Austria
Interaction between hydrological and biological processes in alluvial food plains

ESTROM talk

09:10 *Silviu Radan*, *Alina Pavel*, Institute GeoEcoMar, Bucharest, and *Bernhard Wehrli*, Eawag
Water and sediment dynamics affecting nutrient cycles and greenhouse gas emissions in the Danube Delta

Topic talks

10:00 *Cristina Sandu*, Biological Institute Academia Romana, Bucharest, *Artem Lyashenko*, and *Sergey Afanasyev*, Institute of Hydrobiology, National Academy of Sciences of Ukraine
Ecological impacts of dredging the Bystroe Channel

10:30 *Orieta Hulea*, WWF Danube Carpathian Programme, Bucharest
Lower Danube Green Corridor: protected areas and human impacts

11:00 *Walter Giger*, *Nicolae Panin*
ESTROM review and outlook, conference summary, concluding remarks

11:15 End of the ESTROM 2008 Conference

3 Registration and fees

You can **register online** by filling out and submitting the **online registration** form (<http://www.estrom.ch/Registration.html>) or print and fill out the form in the 2nd circular and mail or fax it to the contact details you find on the circular.

Registration fees

Regular Participants: 75 Euro

Students: 40 Euro

Registration fees include the expenses for the Conference Book of Abstracts, the CD-ROM, the welcome reception, refreshments, lunch and conference dinner.

Payment: See information at <http://www.estrom.ch/>

Last minute posters can be submitted until 25 August

4 Sponsors

- SNSF, Swiss National Science Foundation
- SDC, Swiss Agency for Development and Cooperation
- Eawag, Swiss Federal Institute of Aquatic Science and Technology

SNSF and SDC are the main financial sponsors through the programme *Environmental Science and Technology in Romania* (ESTROM).

Additional support

- CNMP, Romanian Centre for Programme Management
- Somes Water Company, Cluj-Napoca, Romania
- NORMAN, Network of reference laboratories for monitoring of emerging environmental pollutants
- IWW, Water Centre, Mulheim Ruhr, Germany
- Institute of Water Quality, Federal Agency for Water Management, Vienna, Austria
- Swiss Chemical Society, Division of Analytical Chemistry

Support by the Division for Chemistry and the Environment (DCE) of the European Association of Chemical and Molecular Sciences (EuCheMS)

ESTROM 2008 is co-sponsored by the DCE of EuCheMS, of which Environ Sci Pollut Res (ESPR) is the official publication organ.

5 Environ Sci Pollut Res

Eight full research articles (peer reviewed) and four to eight short papers from and about ESTROM will be published in

form of a Special Issue in ESPR. The publication will appear in 2008 in the aftermath of the ESTROM 2008 Conference.

6 Organisers

Organising Committee

- Walter Giger, Eawag, Duebendorf, Switzerland
- Jürg Bloesch, Eawag, Duebendorf, Switzerland
- Jürg Zobrist, Eawag, Duebendorf, Switzerland
- Nicolae Panin, GeoEcoMar, Bucharest, Romania
- Alina Pavel, GeoEcoMar, Bucharest, Romania
- Elisabeth Schenker, Swiss National Science Foundation, Berne, Switzerland
- Viorel Ungureanu, University of Bucharest, Romania
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- Mariana Neamtu, Technical University of Iasi, Romania
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- Bernhard Wehrli, Eawag and ETH, Zurich, Switzerland